

| TERMINAL ROUTES | | | | MISSED APPROACH |
|--|-----------------------------|---------------------|----------|--|
| FROM | TO | COURSE AND DISTANCE | ALTITUDE | LNAV: REFRI |
| CLT VOR/DME | WUXVO (FO) | 130.37 / 22.77 | 2500 | CLIMBING LEFT TURN TO 2500 DIRECT WUXVO AND HOLD. |
| CTF VOR/DME | WUXVO (FO) | 331.06 / 24.45 | 2500 | |
| LOCAS (IAF) | WUXVO (NOPT) (FB) | 211.14 / 14.49 | 2500 | ADDITIONAL FLIGHT DATA: CHART FAS OBST: 779 TREE 345344N/0804333W CHART MONROE ASOS FAC CROSSES RWY C/L EXTENDED 3000 FROM THLD. JUDOB TO RW22: 3.05/40 CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 15.05 DEGREES. |
| WUXVO (IF/IAF) | JUDOB (FB) | 240.09 / 6.02 | 2300 | |
| JUDOB (FAF) | HISOD/1.20 NM TO REFRI (FB) | 240.03 / 3.45 | | |
| HISOD/1.20 NM TO REFRI (SEE FORM 8260-10) | REFRI (MAP) (FO) | 240.03 / 1.20 | | |

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD NE WUXVO, LT, 240.09 INBOUND, 2500 FT. IN LIEU OF PT (IAF)
3. FAC: 240.03 FAF: JUDOB DIST FAF TO MAP: 4.65 THLD: 5.13
4. MIN. ALT: WUXVO 2500, JUDOB 2300, HISOD/1.20 NM TO REFRI 1180
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 100 HAT: GS ANT:
6. MIN GS INCPT: GS ALT AT: OM: MM: IM:
7. GS ANGLE: TCH: 34:1 IS NOT CLEAR
8. MSA FROM: REFRI 3100

MAG VAR: 7W EPOCH YEAR: 2000

| MINIMUMS | | | | | | | | | | | | | | | |
|----------------|--|-----|---------|--------|-----|---------|------------------|-----|---------|--------|-----|---------|--------|-----|---------|
| TAKEOFF: | SEE FAA FORM 8260-15A FOR THIS AIRPORT | | | | | | ALTERNATE: N A X | | | | | | | | |
| CATEGORY >>>>> | A | | | B | | | C | | | D | | | E | | |
| | DH/MDA | VIS | HAT/HAA | DH/MDA | VIS | HAT/HAA | DH/MDA | VIS | HAT/HAA | DH/MDA | VIS | HAT/HAA | DH/MDA | VIS | HAT/HAA |
| LNAV MDA | 1080 | 1 | 478 | 1080 | 1 | 478 | | NA | | | NA | | | | |
| CIRCLING | 1160 | 1 | 558 | 1220 | 1 | 618 | | NA | | | NA | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

NOTES:
 CHART NOTE: DME/DME RNP-0.3 NA.
 CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON CTF VOR/DME AIRWAY RADIALS 243 CW 013.
 CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LOCAS ON T201 NORTHEAST BOUND.
 CHART NOTE: CHART NOTE: PROCEDURE NA AT NIGHT.
 (SEE FORM 8260-10)

| | | | | |
|----------------|---------------------------------|----------------------|--|-----------------------|
| CITY AND STATE | ELEVATION: 602 TDZE: 602 | FACILITY IDENTIFIER: | PROCEDURE NO./AMDT NO./EFFECTIVE DATE: | SUP: |
| WAXHAW, NC | AIRPORT NAME: JAARS-TOWNSEND | RNAV | RNAV (GPS) RWY 22, ORIG-A 18 SEPTEMBER 2014 | AMDT: ORIG |
| | | | | DATED 03/12/2009 |

**RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33**

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES, (CONT.):

| FROM | TO | COURSE AND DISTANCE | ALTITUDE |
|-------------|------------|---------------------|----------|
| REFRI (MAP) | 1002 MSL | 240.03 | |
| 1002 MSL | WUXVO (FO) | | 2500 |

NOTES, (CONT.):

CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

CHART NOTE USE MONROE ALTIMETER SETTING, WHEN NOT RECEIVED USE ROCK HILL ALTIMETER SETTING AND INCREASE ALL MDA 20 FEET.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CLT VOR/DME ON V37 NORTHBOUND.

CITY AND STATE
WAXHAW, NC

ELEVATION: 602 TDZE: 602
AIRPORT NAME:
JAARS-TOWNSEND

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RNAV

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RNAV (GPS) RWY 22, ORIG-A
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U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - FAR PART 97.33

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ARINC SUMMARY - 424-18 - RNAV (GPS)

| ROUTES | TRANSITION | FIX | SEQ | USE | PATH | TURN | FO/FB | RNP | MAG (TRUE) | DISTANCE | ALTITUDE | SPEED |
|--------|------------|-------|-----|------|------|------|-------|-----|----------------|----------|----------|----------|
| | CLT | CLT | 010 | | IF | | FB | | | | | |
| | CLT | WUXVO | 020 | | TF | | FO | 2.0 | 130.4 (123.4T) | 022.8 | AA 02500 | |
| | CLT | WUXVO | 030 | IAF | HF | L | FO | | 240.1 (233.1T) | 004.0 | AA 02500 | |
| | CTF | CTF | 010 | | IF | | FB | | | | | |
| | CTF | WUXVO | 020 | | TF | | FO | 2.0 | 331.1 (324.1T) | 024.5 | AA 02500 | |
| | CTF | WUXVO | 030 | IAF | HF | L | FO | | 240.1 (233.1T) | 004.0 | AA 02500 | |
| | LOCAS | LOCAS | 010 | IAF | IF | | FB | | | | | |
| | LOCAS | WUXVO | 020 | | TF | | FB | 1.0 | 211.1 (204.1T) | 014.5 | AA 02500 | |
| | | WUXVO | 010 | FACF | IF | | FB | | | | AA 02500 | |
| | | JUDOB | 020 | FAF | TF | | FB | 0.5 | 240.1 (233.1T) | 006.0 | AA 02300 | |
| | | HISOD | 021 | SDF | TF | | FB | 0.3 | 240.0 (233.0T) | 003.5 | AA 01180 | GS 01183 |
| | | REFRI | 030 | MAP | TF | | FO | 0.3 | 240.0 (233.0T) | 001.2 | AT 00799 | |

| MISSED APPROACH | FIX | SEQ | USE | PATH | TURN | FO/FB | RNP | MAG (TRUE) | DISTANCE | ALTITUDE | SPEED |
|-----------------|-------|-----|-----|------|------|-------|-----|----------------|----------|----------|-------|
| | | 040 | | CA | | FB | | 240.0 (233.0T) | | AA 01002 | |
| | WUXVO | 050 | | DF | L | FO | | | | AA 02500 | |
| | WUXVO | 060 | | HM | L | FO | | 240.1 (233.1T) | 004.0 | AA 02500 | |

| POINT DATA | WAYPOINT | LAT IN SECS | LONG IN SECS | LAT IN MINS | LONG IN MINS |
|------------|----------|-------------|--------------|-------------|--------------|
| | CLT | N351125.04 | W0805706.31 | N3511.417 | W08057.105 |
| | CTF | N343901.79 | W0801629.70 | N3439.030 | W08016.495 |
| | HISOD | N345307.90 | W0804309.95 | N3453.132 | W08043.166 |
| | JUDOB | N345512.63 | W0803948.91 | N3455.211 | W08039.815 |
| | LOCAS | N351205.18 | W0802644.89 | N3512.086 | W08026.748 |
| | REFRI | N345224.49 | W0804419.84 | N3452.408 | W08044.331 |
| | WUXVO | N345850.05 | W0803357.71 | N3458.834 | W08033.962 |
| | RW22 | N345201.10 | W0804442.00 | N3452.018 | W08044.700 |

| RUNWAY DATA | RWY | THRESHOLD ELEVATION | TCH |
|-------------|------|---------------------|-----|
| | RW22 | 00599 | 40 |

| | | | | | |
|------------------------------|---------------------------------|-----------|----------------------|--|-------------------|
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